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PATENT

Customer No. 22,852

Attorney Docket No. 09580.0008-00000

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: )  
)  
Kevin S. CURRIE et al. ) Group Art Unit: 1624  
)  
Application No.: 10/776,631 ) Examiner: Zachary C. Tucker  
)  
Filed: February 10, 2004 )  
) Confirmation No.: 1748  
For: CERTAIN 8-HETEROARYL-6- )  
PHENYL-IMIDAZO[1,2-A]PYRAZINES )  
AS MODULATORS OF HSP90 )  
COMPLEX ACTIVITY )

**Mail Stop Amendment**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

**RESPONSE TO OFFICE ACTION**

Claims 1-43 are pending. In a restriction requirement, mailed January 27, 2006, the

Examiner required restriction under 35 U.S.C. §§ 121 between:

Group I - Claims 1-35 and 60, drawn to chemical compounds having the imidazo[1,2-a]pyrazine core;

Group II - Claims 44-56, drawn to methods of modulating the binding of ATP to Hsp90 complex, and also treatment of various diseases and disorders;

Group III - Claims 57-59, drawn to a method for detecting the presence or absence of Hsp90 *in vitro*;

Group IV - Claims 36-42, drawn to a pharmaceutical composition and to a packaged pharmaceutical composition; and

Group V - Claim 43, drawn to a method of reducing medication error and enhancing therapeutic compliance.

The inventions of Group I and II were alleged to be related as product and process of use, and distinct because the process as claimed can be practiced with another materially different product. The inventions of Group I and III were also alleged to be related as product and process of use, but the method of Group III were not seen as commensurate with those of Group II because of the additional step of detection in those methods. Inventions I and IV were alleged to be related as product and sub-product. The inventions of Group IV and V were alleged to be related as product and process of using. Applicants respectfully disagree and traverse the restriction requirement.

**THE RESTRICTION REQUIREMENT IS IMPROPER**

MPEP §803 mandates two criteria for a proper restriction requirement:

“(A) The inventions must be independent (see MPEP §802.01, §806.04, §808.01) or distinct as claimed (see MPEP §806.05 - §806.05(i)); **and**

(B) **There must be a serious burden on the examiner** if restriction is required (see MPEP §803.02, §806.04(a)-§806.04(i), §808.01(a), and §808.02).” (Emphasis added.)

No such serious burden has been alleged in the Office Action, and it is Applicants’ position that no such serious burden exists. All of the claims are limited to compounds of Formula I or a form thereof, compositions comprising such compounds or forms, or methods of their use. In other words, the methods of the invention can be practiced with no product other than a compound of Formula I or form thereof or a composition comprising such compound of Formula I or form thereof. In that regard, notwithstanding the classifications into which these compounds, compositions, and methods fall, the search for provisionally elected Group I would appear of necessity also to cover the art relevant to Group II-V as a source for novelty- or obviousness-defeating prior compositions of matter. The restriction requirement should, therefore, be withdrawn.

**PROVISIONAL ELECTION**

Applicants provisionally elect the subject matter of Group I - Claims 1-35 and 60, drawn to chemical compounds have the imidazo[1,2-a]pyrazine core.. The right to pursue non-elected subject matter in one or more divisional applications is expressly reserved.

**OBJECTION TO THE TITLE**

The Examiner has objected to the title of the application under 37 C.F.R. § 1.72 as not being descriptive. Applicants respectfully request that the Office hold this objection in abeyance. Applicants will amend the title upon receipt of an indication of allowability of the claims.

**COMMENTS AS TO Z<sub>1</sub>**

The Office has noted a discussion of the variable Z<sub>1</sub> on page 5 of the specification. The Office maintains that the compounds as claimed do not include such variable and have asked Applicants to review the claims and the specification to determine whether something was omitted from the claims or included in the specification which is not germane to the claims.

Applicants thank the Office for its careful review of the subject application. The specification describes compounds of Formula I wherein Z<sub>1</sub> is as specified, for example, on page 5. The claims are directed to a specific embodiment of the invention wherein Z<sub>1</sub> is -(CR<sub>4</sub>R<sub>5</sub>)<sub>m</sub>- wherein m is 0, i.e., Z<sub>1</sub> is a covalent bond directly linking W to R<sub>1</sub>. For the convenience of the reader, rather than including Z<sub>1</sub> in the depiction of Formula I in the claims and then specifying that it is a covalent bond, Applicants have simply shown W covalently bound to R<sub>1</sub>.

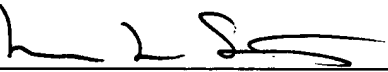
**CONCLUSION**

Applicants maintain that restriction is improper in the present application because examination of the compounds, compositions, and the claimed method of their use would not appear to impose an undue or serious burden on the Office's resources. Reconsideration of the restriction requirement is earnestly solicited.

Please grant any extensions of time required to enter this response and charge any additional required fees to Deposit Account No. 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,  
GARRETT & DUNNER, L.L.P.

By:   
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Lauren L. Stevens  
Reg. No. 36,691



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Sir:

**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT**  
**UNDER 37 C.F.R. § 1.97(b)**

Pursuant to 37 C.F.R. §§ 1.56 and 1.97(b), Applicants bring to the attention of the Examiner the documents on the attached listing. This Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits for the above-referenced application.

Copies of the listed foreign and non-patent literature documents are attached. Copies of the U.S. patent publications are not enclosed.

Applicants respectfully request that the Examiner consider the listed documents and indicate that they were considered by making appropriate notations on the attached form.

This submission does not represent that a search has been made or that no better art exists and does not constitute an admission that each or all of the listed documents are material or


constitute "prior art." If the Examiner applies any of the documents as prior art against any claim in the application and Applicants determine that the cited documents do not constitute "prior art" under United States law, Applicants reserve the right to present to the office the relevant facts and law regarding the appropriate status of such documents.

Applicants further reserve the right to take appropriate action to establish the patentability of the disclosed invention over the listed documents, should one or more of the documents be applied against the claims of the present application.

If there is any fee due in connection with the filing of this Statement, please charge the fee to Deposit Account No. 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,  
GARRETT & DUNNER, L.L.P.

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Lauren L. Stevens  
Reg. No. 36,691

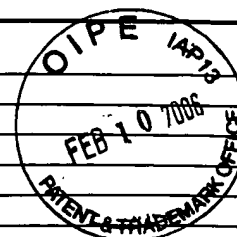
**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 1 of 2

**Complete if Known**

Application Number	10/776,631
Filing Date	February 10, 2004
First Named Inventor	Kevin S. CURRIE
Art Unit	1624
Examiner Name	Zachary C. Tucker
Attorney Docket Number	09580.0008-00000

**U.S. PATENTS AND PUBLISHED U.S. PATENT APPLICATIONS**

Examiner Initials	Cite No.	Document Number	Issue or Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code (if known)			
		US-2004-0063715	04/01/2004	Paruch et al.	
		US-2004-0072835	04/15/2004	Paruch et al.	
		US-2004-0220189	11/04/2004	Sun et al.	
		US-2005-0009832	01/13/2005	Sun et al.	
		US-2005-0054648	03/10/2005	Mitchell et al.	
		US-2005-0085484	04/21/2005	Mitchell et al.	
		US-2005-0090499	04/28/2005	Currie et al.	
		US-2005-0101604	05/12/2005	Currie et al.	
		US-2005-0288295	12/29/2005	Currie et al.	

**FOREIGN PATENT DOCUMENTS**

Examiner Initials	Cite No.	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	Translation
		Country Code Number Kind Code (if known)				
		WO 02/066481	08/29/2002			
		WO 02/076985	10/03/2002			
		WO 03/070732	08/28/2003			
		WO 2004/026310	04/01/2004			
		WO 2004/026877	04/01/2004			
		WO 2005/005429	01/20/2005			
		WO 2005/014599	02/17/2005			
		WO 2005/019220	03/03/2005			
		WO 2005/047290	05/26/2005			

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Translation
		DING et al. (2002) "A Combinatorial Scaffold Approach toward Kinase-Directed Heterocycle Libraries," J. Am. Chem. Soc., 124(8): 1594-1596.	

Examiner Signature		Date Considered	
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

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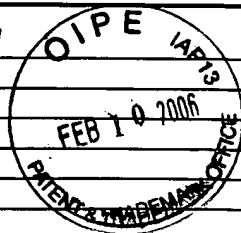
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Art Unit	1624
Examiner Name	Zachary C. Tucker
Attorney Docket Number	09580.0008-00000

**NON PATENT LITERATURE DOCUMENTS**

	"Protein Kinases in Disease," references produced from a Sep. 24, 1997, search of the On-line Meddelian Inheritance in Man (OMIM) database, pp. 1-11, from <a href="http://bioinformatics.weizmann.ac.il/Kinases/pkr/pk_medicine.html">http://bioinformatics.weizmann.ac.il/Kinases/pkr/pk_medicine.html</a> .	
	International Search Report dated October 22, 2003, for Application No. PCT/US03/12222, International filing date April 21, 2003.	
	Written Opinion dated December 5, 2003, for Application No. PCT/US03/12222, International filing date April 21, 2003.	
	Second Written Opinion dated April 13, 2004, for Application No. PCT/US03/12222, International filing date April 21, 2003.	
	International Preliminary Examination Report dated August 3, 2004, for Application No. PCT/US03/12222, International filing date April 21, 2003.	
	International Search Report dated February 9, 2004, for Application No. PCT/US03/28329, International filing date September 9, 2003.	
	Written Opinion dated July 6, 2004, for Application No. PCT/US03/28329, International filing date September 9, 2003.	
	International Preliminary Examination Report dated October 27, 2004, for Application No. PCT/US03/28329, International filing date September 9, 2003.	
	International Search Report and Written Opinion dated July 7, 2004, for Application No. PCT/US2004/003922, International filing date February 10, 2004.	
	International Search Report and Written Opinion dated July 7, 2004, for Application No. PCT/US2004/003923, International filing date February 10, 2004.	
	International Search Report and Written Opinion dated December 8, 2004, for Application No. PCT/US2004/021150, International filing date June 30, 2004.	
	International Search Report and Written Opinion dated December 30, 2004, for Application No. PCT/US2004/018227, International filing date June 4, 2004.	
	International Search Report and Written Opinion dated February 1, 2005, for Application No. PCT/US2004/025884, International filing date August 11, 2004.	
	Invitation to Pay Additional Fees with Partial International Search Report dated May 3, 2005, for Application No. PCT/US2004/037433, International filing date November 10, 2004.	
	International Search Report and Written Opinion dated June 23, 2005, for Application No. PCT/US2004/037433, International filing date November 10, 2004.	

Examiner  
SignatureDate  
Considered

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